CELL CALCIUM

Volume 14 Contents

Number 1 January 1993

Tenidap: a novel inhibitor of calcium influx in a mast cell line 1
P.L. Cleveland, P.J. Millard, H.J. Showell and C.M.S. Fewtrell

Abundance of heteronuclear and messenger RNA for internal Ca pump in stomach smooth muscle and myocardium 17
I. Khan and A.K. Grover

Estradiol modulation of PMA – and ionomycin-stimulated LH secretion from pituitaries of castrated rats 25
N.W. Fahmy and G.A. Bourne

Indications from Mn-quenching of Fura–2 fluorescence in melanotrophs that dopamine and baclofen close Ca channels that are spontaneously open but not those opened by high $[K^+]_o$; and that Cd preferentially blocks the latter 33
I. Shibuya and W.W. Douglas

Independent actions of asparagine and high levels of free Ca^{2+} in the induction of ornithine decarboxylase 45
W.F. Fong, H.N.H. Pong, M.S.M. Yang and P.C.L. Wong

Thapsigargin elevates and potentiates the ability of progesterone to increase intracellular free calcium in human sperm: possible role of perinuclear calcium 53
P.F. Blackmore

A discrete Na^+/Ca^{2+} exchange dependent, Ca^{2+} compartment in cultured neonatal rat heart cells. Characteristics, localization and possible physiological function 61
J.A. Post, J.H. Kuwata and G.A. Langer

Net calcium and acid release at fertilization in eggs of sea urchins and ascidians 73
W.M. Kühtreiber, I. Gillot, C. Sardet and L.F. Jaffe

Number 2 February 1993

The calcium concentration clamp: spikes and reversible pulses using the photolabile chelator DM-nitrophen 87
R.S. Zucker

Calcium entry in *Xenopus* oocytes: effects of inositol trisphosphate, thapsigargin and DMSO 101
M. Lupu-Meiri, A. Beit-Or, S.B. Christensen and Y. Oron

Expression of the internal calcium pump in pregnant rat uterus 111
I. Khan, T. Tabb, R.E. Garfield, L.R. Jones, V.P. Fomin, S.E. Samson and A.K. Grover

Reconstitution of a T cell receptor-stimulated plasma membrane calcium transporter: lack of dependence on inositol phosphates 119
C. O'Riordan and P.M. Rosoff

Calcium current-dependent staircase in rat myotubes and myoballs developing in culture 135
B. Constantin, C. Cognard, M. Rivet-Bastide and G. Raymond

Dose-dependent recruitment of pancreatic acinar cells during receptor-mediated calcium mobilization 145
P.H.G.M. Willems, S.E. Van Emst-De Vries, C.H. Van Os and J.J.H.H.M. De Pont

Expression of voltage-gated calcium channels correlates with PDGF-stimulated calcium influx and depends upon cell density in C3H 10T1/2 mouse fibroblasts 161
M. Estacion and L.J. Mordan

Number 3 March 1993

A calcium influx is neither strictly associated with nor necessary for exocytotic membrane fusion in *Paramecium* cells 173
G. Knoll, A. Grässle, C. Braun, W. Probst, B. Höhne-Zell and H. Plattner

Intracellular calcium mobilization by inositol 1,4,5-trisphosphate: intracellular movements and compartmentalization 185
J.A. Connor

Thimerosal induced changes of intracellular calcium in human endothelial cells 201
M. Gericke, G. Droogmans and B. Nilius

Calcium mobilization and cell proliferation activated by extracellular ATP in human ovarian tumour cells 209
L.D. Popper and S. Batra

Adenosine 3′,5′-cyclic monophosphate-mediated prolactin secretion in GH_4C_1 cells involves Ca^{2+} influx through L-type Ca^{2+} channels 219
T. Inukai, X. Wang, S.E. Greer and M.A. Greer

A model of calcium regulation in smooth muscle cell 227
A.Y.K. Wong and G.A. Klassen

Characterization of Ca^{2+} signals generated by extracellular nucleotides in supporting cells of the organ of Corti 245
D. Dulon, R. Moataz and P. Mollard

Number 4 April 1993

The calcium signal in human neutrophils and its relation to exocytosis investigated by patch-clamp capacitance and Fura–2 measurements 255
O. Nüße and M. Lindau

Extracellular Ca^{2+} sensing by the osteoclast 271
M. Zaidi, A.S.M.T. Alam, C.L.-H. Huang, M. Pazianas, C.M.R. Bax, B.E. Bax, B.S. Moonga, P.J.R. Bevis and V.S. Shankar

Calcium control on $InsP_3$-induced discharge of calcium from permeabilised hepatocyte pools 279
L. Combettes, M. Claret and P. Champeil

Nimodipine protects cultured spinal cord neurones from depolarization-induced inhibition of neurite outgrowth 293
P.R. Bär, G.H. Renkema, C.M. Veraart, E.M. Hol and W.H. Gispen

The polyether bistramide A affects the calcium sensitivity of the contractile proteins in frog atrial heart muscle 301
M-P. Sauviat, J-M. Chesnais, N. Choukri, J. Diacono, J-F. Biard and J-F. Verbist

One-pool model for Ca^{2+} oscillations involving Ca^{2+} and inositol 1,4,5-trisphosphate as co-agonists for Ca^{2+} release 311
G. Dupont and A. Goldbeter

Identification of an S100 target protein: glycogen phosphorylase 323
D.B. Zimmer and J.G. Dubuisson

Intracellular calcium transients induced by different kinds of stimulus during myogenesis of rat skeletal muscle cells studied by laser cytofluorimetry with Indo–1 333
C. Cognard, B. Constantin, M. Rivet-Bastide and G. Raymond

Calbindin D_{28K} expression in transfected mouse NIH3T3 cells 349
E.M. Muir, D.E.M. Lawson, F.V. Sepúlveda, J.A. O'Brien and M. Harding

Number 5 May 1993

Ratiometric confocal Ca^{2+}-measurements with visible wavelength indicators in isolated cardiac myocytes 359
P. Lipp and E. Niggli

Light-emitting properties of recombinant semi-synthetic aequorins and recombinant fluorescein-conjugated aequorin for measuring cellular calcium 373
O. Shimomura, B. Musicki, Y. Kishi and S. Inouye

Okadaic acid uncouples calcium entry from depletion of intracellular stores 379
R.D. Berlin and S.F. Preston

Isolated rat glomerular cells demonstrate L-type Ca^{2+}-channel activity 387
G.F. McDermott, R.D. Hurst and C.I. Whiteside

Effect of voltage-gated plasma membrane Ca^{2+} fluxes on IP_3-linked Ca^{2+} oscillations 397
J. Keizer and G. De Young

Activation of calcium entry by cyclopiazonic acid in thyroid FRTL-5 cells 411
K. Törnquist

Number 6 June 1993

Calcium clamp in single nerve cells 419
P.V. Belan, P.G. Kostyuk, V.A. Snitsarev and A.V. Tepikin

Reconstitution of a voltage-activated calcium conducting cation channel from brain microsomes 427
C. Martin and R.H. Ashley

Competence induction by PDGF requires sustained calcium influx by a mechanism distinct from storage-dependent calcium influx 439
M. Estacion and L.J. Mordan

Stimulation of human platelet Ca^{2+}-ATPase and Ca^{2+} restoration by calpain 455
H. Ariyoshi, E. Shiba, J. Kambayashi, M. Sakon, T. Kawasaki, K. Yoshida and T. Mori

Monitoring of intracellular free calcium in perfused rat liver 465
Z. Ruttner, L. Ligeti, L. Reinlib, K. Hines and A.C. McLaughlin

Critical evaluation of cytosolic calcium determination in resting muscle fibres from normal and dystrophic (mdx) mice 473
Ph. Gailly, B. Boland, B. Himpens, R. Casteels and J.M. Gillis

Inositol 1,4,5-trisphosphate binding sites copurify with the putative Ca-storage protein calreticulin in rat liver 485
P. Enyedi, G. Szabadkai, K.-H. Krause, D.P. Lew and A. Spät

Sphingosine mobilizes intracellular calcium in human neutrophils 493
K. Wong and L. Kwan-Yeung

Intracellular calcium signalling after binding of low-density lipoprotein to confluent and nonconfluent cultures of an endothelial cell line, EA.hy 926 507
H.I.M.B. Schaefer, K.M. Höld, J.M. Egas-Kenniphaas and A. van der Laarse

An inwardly rectifying K^+ channel in human adenomatous parathyroid cells 517
A.D. Conigrave, P. Poronnik, P. Komwatana, L. Delbridge, J.A. Young and D.I. Cook

Number 7 July 1993

Effects of elevated pressures of inert gases on cytosolic free Ca^{2+} of human platelets stimulated with ADP 525
R.B. Philp, D.J.McIver and P. Arora

Characterization of the inositol trisphosphate- sensitive and insensitive calcium stores by selective inhibition of the endoplasmic reticulum-type calcium pump isoforms in isolated platelet membrane vesicles 531
B. Papp, K. Pászty, T. Kovács, B. Sarkadi, G. Gárdos, J. Enouf, and Á. Enyedi

Altered calcium regulation in SV40-transformed Swiss 3T3 fibroblasts 539
T.G. Newcomb, R.D. Mullins and J.E. Sisken

Membrane potential regulates Ca^{2+} uptake and inositol phosphate generation in rat sublingual mucous acini 551
G.H. Zhang and J.E. Melvin

Changes in cytosolic resting ionized calcium level and in calcium transients during in vitro development of normal and Duchenne muscular dystrophy cultured skeletal muscle measured by laser cytofluorimetry using indo–1 563
M. Rivet-Bastide, N. Imbert, C. Cognard, G. Dupont, Y. Rideau and G. Raymond

Number 8 September 1993

Tetraethylammonium blockade of K^+ channels in GH_4C_1 cells regulates prolactin secretion by inducing Ca^{2+} influx 573
X. Wang, T. Inukai and M.A. Greer

Expression of Ca^{2+} binding proteins of the sarcoplasmic reticulum of striated muscle in the endoplasmic reticulum of pig smooth muscles 581
L. Raeymaekers, J. Verbist, F. Wuytack, L. Plessers and R. Casteels

Heterogeneity of intracellular calcium responses to parathyroid hormone and thrombin in primary osteoblast-like cells and UMR106-01 cells: Correlations with culture conditions, intracellular calcium concentration and differentiation state 591
A. Wiltink, A. Maassen van den Brink, M.P.M. Herrmann-erlee, J.M. van der Meer, A. van der Plas, P.H.G.M. Willems, B. Van Duijn, P.J. Nijweide and D.L. Ypey

Effect of calcium depletion on the secretion of newly synthesised human chorionic gonadotropin by first trimester human placenta 601
S.C. Sharma and A.J. Rao

Calmodulin expression during proliferative activation of human T lymphocytes 609
J. Colomer, N. Agell, P. Engel, J. Alberola-ila and O. Bachs

Letters to the Editors 619

Number 9 October 1993

Enhancement of cell killing and increase in cytosolic calcium concentration by combined treatments with hyperthermia and TMB-8 in mouse mammary carcinoma FM3A cells 621
T. Kondo, E. Kano, Y. Habara and T. Kanno

Control of intracellular Ca^{2+} by adrenergic and muscarinic agonists in mouse mandibular ducts and endpieces 631
A. Dinudom, P. Poronnik, D.G. Allen, J.A. Young and D.I. Cook

Characterization of a polyclonal antiserum against the purified human recombinant calcium binding protein calretinin 639
B. Schwaller, P. Buchwald, I. Blümcke, M.R. Celio and W. Hunziker

Differential activation of inositol 1,4,5-trisphosphate-sensitive calcium pools by muscarinic receptors in *Xenopus laevis* oocytes 649
H. Ji, K. Sandberg, T.I. Bonner and K.J. Catt

Aequorin-expressing mammalian cell lines used to report Ca^{2+} mobilization 663
D. Button and M. Brownstein

Number 10 November 1993

Ca^{2+} SIGNALLING: WAVES AND GRADIENTS
Collected Papers and Reviews – Edited by Steen Dissing

Preface 673
S. Dissing

Intracellular calcium waves generated by Ins(1,4,5)P_3-dependent mechanisms 674
T.A. Rooney and A.P. Thomas

Localized calcium spikes and propagating calcium waves 691
N.L. Allbritton and T. Meyer

Ca^{2+} signalling in exocrine acinar cells: the diffusional properties of cellular inositol 1,4,5-trisphosphate and its role in the release of Ca^{2+} 698
J. Gromada, T.D. Jørgensen, K. Tritsaris, B. Nauntofte and S. Dissing

Mechanisms of calcium release and propagation in cardiac cells. Do studies with confocal microscopy add to our understanding? 711
D.A. Williams

Classes and mechanisms of calcium waves 724
L.F. Jaffe

Ca^{2+} oscillations in pancreatic acinar cells: spatiotemporal relationships and functional implications 736
P. Thorn, A.M. Lawrie, P.M. Smith, D.V. Gallacher and O.H. Petersen

Two different spatiotemporal patterns for Ca^{2+} oscillations in pancreatic acinar cells: evidence of a role for protein kinase C in Ins(1,4,5)P_3-mediated Ca^{2+} signalling 746
A.M. Lawrie, E.C. Toescu and D.V. Gallacher

Subject Index to Volume 14 759

Author Index to Volume 14 763